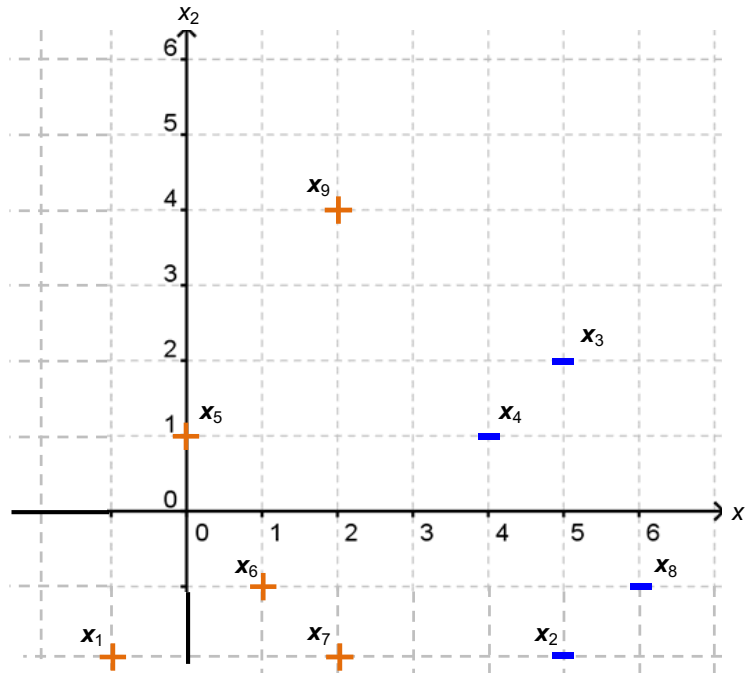


SVM Optimization Practice

(find and work with a partner)

Incremental SVM optimization algorithm. Let $K = 4$ (initial dataset size). We will iteratively add points in order of their indices (not randomly). Run the incremental SVM optimization algorithm – at each stage, write out S , the support vectors, and which α values end up being 0. At the end, what is the equation of the separating hyperplane?



Round 1:

- $S =$
- Support vectors:
- α 's that are 0:

Round 2:

- $S =$
- Support vectors:
- α 's that are 0:

Round 3:

- $S =$
- Support vectors:
- α 's that are 0:

Round 4:

- $S =$
- Support vectors:
- α 's that are 0: